

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Chian-Min. Ho, Robert Kristianto Mardjuki, David Lansing Dill, Jing Chyuarn Lin, Ping Fai Yeung, Paul II Estrada, Jean-Charles Giomi, Tai An Ly, Kalyana C. Mulam, Lawrence Curtis Widdoes, Jr., Paul Andrew Wilcox

Assignee: 0-IN DESIGN AUTOMATION

Title: A METHOD FOR AUTOMATICALLY SEARCHING FOR FUNCTIONAL DEFECTS IN A DESCRIPTION OF A CIRCUIT

Serial No.: Not Yet Assigned Filed: Concurrently Herewith

Examiner: Not Yet Assigned Group Art Unit: 2763

Docket No.: M-5333-1C US

San Jose, California  
May 4, 2001

BOX PATENT APPLICATION  
COMMISSIONER FOR PATENTS  
Washington, D. C. 20231

PRELIMINARY AMENDMENT

Dear Sir:

Prior to examination, please amend the above-referenced application as follows:

IN THE SPECIFICATION

Please replace the paragraph beginning at page 1, line 18, with the following paragraph:

This application is a continuation of U.S. Patent Application Serial No. 08/954,765, filed October 20, 1997. In addition, this application is related to and incorporates by reference herein in its entirety the concurrently filed, commonly owned U.S. Patent Application, Serial Number 08/955,329 [Attorney Docket Number M-5302 US] filed by

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Tai An Ly, et al., and entitled "A Method for Automatically Generating Checkers for Finding Functional Defects in a Description of a Circuit".

In accordance with 37 CFR § 1.121(b)(1)(iii), Appendix A contains a marked up version of the amended paragraph illustrating the newly introduced changes in the specification.

### IN THE CLAIMS

Please cancel claims 1-10. Please add new Claims 11 to 13, as follows:

11. A computer-implemented method for determining defects in the functional behavior of a circuit, the functional behavior of the circuit including a plurality of states and a plurality of transitions between the states, the states including a current state, a plurality of next states reachable from the current state, and a reset state, the method comprising:

simulating the functional behavior of the circuit using a description of the circuit, wherein the simulating includes:

transitioning the simulation from the current state to a first next state;

transitioning the simulation from the current state to a second next state;

wherein transitioning from the current state to the second next state is performed automatically after transitioning from the current state to the first next state without entering the reset state; and

determining defects in the functional behavior of the circuit using the simulating.

12. The method of Claim 11, wherein the simulation is set to the current state after transitioning to the first next state.

13. The method of Claim 11, wherein the first transitioning is performed in response to a first test vector, and the second state transition is performed in response to a second test vector.

REMARKS

Please enter the above amendments prior to examination on the merits. If there are any question, please contact the undersigned at 408/453-9200.

EXPRESS MAIL LABEL NO:

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Respectfully submitted,



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## Appendix A

The following is a marked up version of the amended paragraph beginning at page 1, line 18.

This application is a continuation of U.S. Patent Application Serial No. 08/954,765, filed October 20, 1997. In addition, this [This] application is related to and incorporates by reference herein in its entirety the concurrently filed, commonly owned U.S. Patent Application, Serial Number \_\_\_\_\_ [Attorney Docket Number M-5302 US] filed by Tai An Ly, et al., and entitled "A Method for Automatically Generating Checkers for Finding Functional Defects in a Description of a Circuit".

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